idling current --is defined as an exponential function of the input control voltage-- (emphasis added). As noted in Applicants' previous Amendment, Ruth teaches a V/I converter 204 which is configured with a differential amplifier to generate control current that maps to a hyperbolic tangent (tanh) function. Ruth discloses that the hyperbolic tangent function behaves as an exponential within a certain range, but the function itself is not an exponential function. By contrast, in Applicants' invention as set forth in amended Claim 1, the idling current is defined as an exponential function of the input control voltage. Compare, for example, equation 4 on page 9 of Applicants' specification and equation 8 at the top of column 5 in Ruth. This leads to substantial practical advantages of the invention over Ruth, such as those discussed in the first paragraph on page 10 of Applicants' prior Amendment.

For the reasons indicated above, this application is believed to be clearly in condition for allowance. Applicants therefore respectfully request that this application be promptly passed to issue.

The Commissioner is hereby authorized to charge to Deposit Account No. 50-1165 any fees under 37 C.F.R. §§
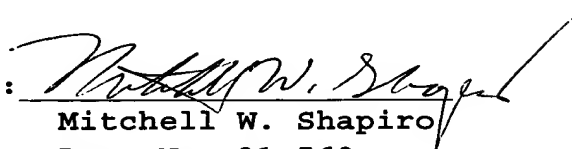
1.16 and 1.17 that may be required by this paper and to

credit any overpayment to that Account. If any extension

of time is required in connection with the filing of this

paper and has not been requested separately, such extension

is hereby requested.

Respectfully submitted,

MWS:lat

By: _____

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Marked-up copy of Specification (Appln. No. 10/083,547)

Pages 2 and 3:

Please substitute the following paragraph for the paragraph beginning on line 24 of page 2:

The voltage across the transistors 609 and 610 becomes substantially constant when an output power control voltage applied to a pin 061 becomes higher than the boot voltage of these transistors. In the voltage region higher than the boot voltage, the idling current increases or decreases in proportion to the control voltage. Because the gain depends on this idling current, the gain can be made variable by controlling the idling current. In fact, the output power control uses this characteristic. In the conventional module example shown in Fig. 9, the idling current to flow in the first-stage amplifier 601 is generated by applying a voltage produced by [diving] dividing the control voltage by resistance to the base of the amplifier. This means taken is different from the means of idling current supply for the second-stage amplifier 602 and the third-stage amplifier 603.

Marked-up amended claim (Appln. No. 10/083,547)

1   1.   (Twice Amended)   A power amplifier module

2   comprising:

3   an amplifier; and

4   a control circuit that supplies the amplifier with an

5   idling current that controls the output power of the

6   amplifier,

7   wherein the control circuit receives an input control

8   voltage and [makes] the idling current [behave so as to

9   follow] is defined as an exponential function of the input

10 control voltage.